

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested.

Currently, claims 1-23 are pending in this application.

Rejections Under 35 U.S.C. §102 and §103:

Claims 1-2, 4, 7-8 and 10 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Weaver (U.S. '245). Applicant respectfully traverses this rejection.

For a reference to anticipate a claim, each element must be found, either expressly or under principles of inherency, in the reference. Each element of the claimed invention cannot be found in Weaver. For example, Weaver fails to disclose a shaft including at least one stage for holding a bucket and an annular step, the annular step projecting axially toward the stage, as required by independent claims 1 and 7.

Weaver does not appear to explicitly disclose a stage for holding a bucket. Applicant submits that if Weaver did disclose such a stage, the stage would be part of high temperature turbine casing 1. Indeed, col. 1, lines 63-67 of Weaver discloses "Referring now more particularly to Fig. 1, the invention is illustrated as applied to a steam turbine, only a portion of the high temperature casing be shown at one, to which is bolted a steam packing assembly 2 of conventional construction." In contrast to the present invention required by independent claims 1 and 7 and their respective dependents, seal member 7 includes a rim 7c which projects axially away from the stage for holding a bucket. Weaver thus fails to disclose an annular step projecting axially toward the stage for holding a bucket.

Claims 4 and 10 have been rewritten in independent form. These independent claims require the step projecting axially away from a thrust bearing enclosure. Weaver fails to disclose or even suggest this limitation.

Page 3, lines 4-6 of the Office Action states “In Fig. 3, the shaft further includes a thrust bearing enclosure 16 which extends radially from the central portion of the shaft 6, the step projecting axially away from the thrust bearing enclosure.” Applicant respectfully disagrees with this characterization of Fig. 3. In contrast to the Office Action’s allegations, Fig. 3 of Weaver shows an alleged step defined by surfaces 7b-7c projecting axially toward annular thrust collar 16 (the alleged thrust bearing enclosure). Fig. 3 thus does not disclose a step projecting axially away from a thrust bearing enclosure. Rather Fig. 3, if anything, shows a step projecting toward a thrust bearing enclosure.

Accordingly, Applicant respectfully submits that claims 1-2, 4, 7-8 and 10 are not anticipated by Weaver and respectfully requests that the rejection of these claims under 35 U.S.C. §102 be withdrawn.

Claims 6 and 12 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Weaver in view of Kalan et al (U.S. ‘345, hereinafter “Kalan”). Applicant respectfully traverses this rejection. Claims 6 and 12 depend from claims 1 and 7, respectively. Accordingly, all of the comments made above with respect to claims 1 and 7 apply equally to claims 6 and 12. Applicant submits that Kalan fails to remedy the above described deficiencies of Weaver, and thus Applicant respectfully requests that the rejection of claims 6 and 12 under 35 U.S.C. §103 be withdrawn.

Claims 3, 5, 9, 11 and 13-18 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Weaver in view of Andress et al (U.S. '804, hereinafter "Andress"). Applicant respectfully traverses this rejection.

In order to establish a *prima facie* case of obviousness, all of the claim limitations must be taught or suggested by the prior art and there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings.

The combination of Weaver and Andress fails to teach or suggest all of the claim limitations required by independent claim 13 and its dependents. For example, the combination fails to teach or suggest "wherein the first and second annular steps project in axially opposite directions."

Page 4, lines 6 *et seq.* of the Office Action alleges "It would have been obvious...to duplicate the bearing and oil deflector teachings of Weaver along the different sections of the turbo machine, as taught by Andress et al...." Even assuming *arguendo* that this allegation is accepted, "duplicate[ing] the bearing and oil deflector teachings of Weaver along the different sections of the turbo machine" would not have arrived at the present invention required by claim 13, since the first and second annular steps project in axially opposite directions. That is, the first and second annular steps are not duplicates, and thus merely duplicating the teachings of Weaver along different sections of a turbo machine will not provide the present invention required by claim 13. There is no teaching or suggestion in Weaver and/or Andress of annular steps projecting in axially opposite directions. Accordingly, Applicant respectfully requests that the rejection of claims 3, 5, 9, 11 and 13-18 under 35 U.S.C. §103 be withdrawn.

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January 5, 2006

New Claims:

New claims 19-23 have been added to provide additional protection for the invention. Claims 19-20 depend from independent claim 1, claim 21 depends from independent claim 7, and claims 22-23 depend from independent claim 13. Applicant submits that these claims are allowable for at least the reasons discussed above with respect to these base independent claims.

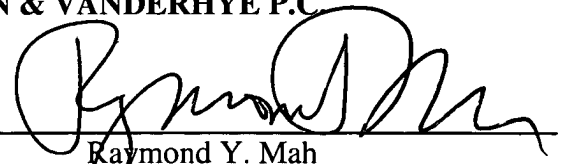
Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____


Raymond Y. Mah
Reg. No. 41,426

RYM:sl
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4044
Facsimile: (703) 816-4100